2014 LaSALLE COUNTY STATION

INITIAL LICENSE EXAMINATION

ADMINISTERED EXAM FILES

SYSTEM JPMs

Exelon Nuclear

Job Performance Measure

Startup of the Second TDRFP

JPM Number: S-FW-17

Revision Number: 01

Date: 10/03/2014

Developed By: _____ Instructor _____ Date

Validated By: _____ SME or Instructor _____ Date

Reviewed By: _____ Operations Representative _____ Date

Approved By: _____ Training Department _____ Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00 This Alternate Path JPM was developed for ILT 13-1 NRC Exam. Converted JPM S-FW-01 to Alternate Path by adding a Seal Injection Pump trip.

Revision 01 Revised per NRC feedback during Prep Week

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to an IC with all three Feed pumps operating. (IC196 for the ILT 13-1 NRC Exam)
2. Verify the following:
    a. Reactor Water Level Control is operating in 3-Element
    b. The MDRFP is operating in AUTO
    c. Verify the 1A TDRFP is on the Turning Gear.
    d. Verify the 1A TDRFP Drain Valves are open
3. Run the CAEP for this JPM: **SFW17r00.cae**
    - **ior k4l06wpy stop** (Override on 1B Seal Injection Pump / prevents auto start)
    - **trg 16 "ior k4h05wpy stop"** (Disengages the Turning Gear when directed)
    - **trgset 17 "k4h05wly.eq.1"** (When 1A TDRFP Turning Gear Switch is taken to PTL)
    - **ior k4l03wpy (17 15) stop** (On Trigger 17 after 15 seconds, trips 1A Seal Inj Pump)
    - **ior k4l03wby (17 15) false** (On Trigger 17 after 15 seconds, trips 1A Seal Inj Pump)
    - **ior q4l03may (17 15) on** (On Trigger 17 after 15 seconds, 1A Seal Inj Pump Auto Trip light on)
    - **trgset 27 "k4l06wby .GE. 0.9"** (When 1B Seal Injection Pump is taken to START)
    - **trg 27 "dor k4l06wpy"** (Deletes override on 1B Seal Injection Pump / allows it to start)
4. Prepare LOP-FW-04, marked up as completed up to Step E.2.11.
5. When the above steps are completed for this and other JPMs to be run concurrently, validate the concurrently run JPMs using the noted steps on the Job Performance Measure Validation Checklist located on page
6. This completes the setup for this JPM.

INITIAL CONDITIONS

Unit 1 is at 55% power with "B" TDRFP in 3E and the MDRFP in AUTO.

The Startup Of Turbine Driven Reactor Feed Pump (TDRFP) Procedure, LOP-FW-04 is in progress for the 1A TDRFP and is complete up to Step E.2.11.

An EO is standing by to support the A TDRFP start at extension 2999.

INITIATING CUE

The Shift Supervisor has directed you to complete the start up of the 1A TDRFP IAW the Startup Of Turbine Driven Reactor Feed Pump (TDRFP) Procedure, LOP-FW-04, starting at Step E.2.11.

Inform the Unit Supervisor when you are ready to initiate the RWLC transfer sequence per LOP-RL-01.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note	**All steps of this JPM are to be completed at control room panel 1H13-P603 and 1PM03J unless otherwise noted.**				
1. E.2.11.1	Momentarily DEPRESS TDRFP Manual Backup Station Alarm Reset.	TDRFP Manual Backup Station Alarm Reset pushbutton momentarily depressed	___	___	___
***2.** E.2.11.2	DEPRESS A TDRFP TURB RESET pushbutton	*A TDRFP TURB RESET pushbutton depressed			
3. E.2.11.2	OBSERVE the following: • TURB A RESET light ILLUMINATES. • TDRFP Hi Press and Lo Press Stop Valves OPEN.	• TURB A RESET light verified ON • TDRFP Hi Press and Lo Press Stop Valves verified OPEN			
Note	**The TDRFP Turning Gear was being used**				
4. E.2.11.3.1.2	LOCALLY VERIFY A TDRFP Turning Gear is DISENGAGED.	EO dispatched to verify that A TDRFP Turning Gear is disengaged	___	___	___
CUE	**Tell the candidate to contact the EO at extension 2999.**				
SIMOP	**Role Play as the EO at the TDRFP and when directed to disengage the A TDRFP Turning Gear, activate Manual Trigger 16, then verify the following Override becomes true: ior k4h05wpy stop** **Then inform examinee that the 1A TDRFP Turning Gear is disengaged.**				
5. E.2.11.3.1.3	PLACE A TDRFP Turning Gear C/S in PTL.	A TDRFP Turning Gear C/S placed in PTL.	___	___	___
Note	**ALTERNATE PATH BEGINS HERE.** **The Alternate Path steps come from LOR-1PM03J-A307, 1A TDRFP SEAL LEAKOFF DRAIN LINE TEMP HI**				
6.	Respond to Annunciator(s) 1PM03J-A307/8, 1A/1B TDRFP SEAL LEAKOFF DRAIN LINE TEMP HI and notify the Unit Supervisor	LOR 1PM03J-A307/8 referenced	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE	**Role Play Unit Supervisor as necessary to acknowledge this report.**				
Note	**The candidate may take immediate action to start the B Seal injection Pump because it should have auto-started when Seal Injection Pressure dropped to 40 psig.**				
***7.** LOR Step 1	VERIFY a Seal Injection Pump is operating. Recognizes that B Seal Injection Pump has not Auto started and starts it	B Seal Injection Pump Control Switch taken to START	___	___	___
Note	**JPM Steps 8, 9, & 10 may not be performed because annunciators will clear shortly after the B Seal Injection Pump is started.**				
8. LOR Step 2	At Panel 1FW01JA, verify pressure at 1PS-FW187/188/189 is greater than 50 psid	1PS-FW187/188/189 reading verified to be greater than 50 psid	___	___	___
CUE	**Role Play as the EO dispatched to the TDRFP. Seal injection DP is 55 psid.**				
9. LOR Step 3	CHECK indication for A TDRFP Turning Gear on panel 1PM03J.	A TDRFP Turning Gear indications verified to be available	___	___	___
10. LOR Step 4	At panel 1PL03JA, CHECK TDRFP Seal Injection Temperature Control System for proper operation.	EO dispatched to Local panel Proper operation of Seal injection Temperature control verified	___	___	___
CUE	**Role Play as the EO dispatched to the TDRFP. All Post-Start checks on the 1B TDRFP Seal Injection Pump are satisfactory.**				
Note	**Since the system has returned to normal operation, the remaining steps of the LOR are not applicable.** **The candidate can return to the LOP for starting 1A TDRFP.**				
CUE	**If necessary, Role Play as Unit Supervisor and prompt the candidate to continue the assigned task.**				
11. E.2.11.3.2	VERIFY 1FW011A, A TDRFP Min Flow Valve M/A Station in AUTO.	A TDRFP Min Flow Valve M/A Station verified in AUTO.	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
***12.** E.2.11.3.3	Momentarily DEPRESS TDRFP Manual Backup Station Start P/B	*A TDRFP Manual Backup Station Start Pushbutton momentarily depressed	___	___	___
13. E.2.11.3.3	OBSERVE: • At 1PM03J, Turbine speed increases evenly to approximately 138 RPM, as observed on 1SIC-FW202/203 Manual Backup Station Digital Display. • A TDRFP Min Flow Valve opens 60%	• Turbine speed verified increasing evenly to approximately 138 RPM • A TDRFP Min Flow Valve verified open to 60%	___	___	___
***14.** E.2.11.3.3.1	Place the TDRFP Manual Backup Station Mode Selector Switch in Manual. • RAISE TDRFP Speed to approximately, but at least, 1000 rpm by Depressing the Manual Backup Station Raise pushbutton(s).	*TDRFP Manual Backup Station Mode Selector Switch in placed in Manual • TDRFP speed raised to at least 1000 RPM using RAISE Pushbutton	___	___	___
15. E.2.11.3.3.1	• VERIFY Turbine vibration remains less than 2 mils.	• Turbine vibration verified to be less than 2 mils	___	___	___
CUE	**There were no previous unsuccessful attempts to start A TDRFP, so Step E.2.11.3.3.2 is Not Applicable.**				
***16.** E.2.11.3.3.3	PLACE the TDRFP Manual Backup Station Mode Selector Switch in Auto.	*TDRFP Manual Backup Station Mode Selector Switch placed in AUTO.	___	___	___
17. E.2.11.3.3.4	CHECK the A TDRFP manual backup station "Auto Enabled" light is illuminated.	A TDRFP manual backup station "Auto Enabled" light is verified to be ON	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
***18.** E.2.11.4	If TDRFP Turb Turning Gear was being used to rotate the TDRFP (per step E.2.5.2.1), DEPRESS A TDRFP TURB TURNING GEAR ENGAGE RESET pushbutton.	A TDRFP TURB TURNING GEAR ENGAGE RESET pushbutton momentarily depressed	___	___	___
Note	**There are no indications of an oil leak, so Step E.2.11.5 is Not Applicable.**				
Note	**The A TDRFP is operating on Low Pressure Steam, so Step E.2.11.6 is Not Applicable.**				
***19.** E.2.11.7	If operating on Low Pressure Steam, CLOSE the following drains: • 1B21-F430A, A TDRFP Turb Lo Press Steam Drn Vlv. • 1B21-F426A and F428A, A TDRFP Stop Vlvs Hi and Lo Press Above Seat Drn Vlv. • 1B21-F425A and F427A, A TDRFP Cont Vlvs Hi and Lo Press Below Seat Drn Vlv. • 1B21-F432A, A TDRFP Turb 1st Stage Drn Vlv.	The following drain verified closed: • 1B21-F430A • 1B21-F426A and F428A • 1B21-F425A and F427A • 1B21-F432A	___	___	___
20. E.2.11.8	CHECK turbine vibration, eccentricity, and oil systems indicate alarms CLEAR.	Turbine vibration, eccentricity, and oil system alarms verified clear	___	___	___
21. E.2.12.1	Open 1FW010A, A TDRFP Pump Discharge Valve	1FW010A opened	___	___	___
22.	Inform the Unit Supervisor that A TDRFP is ready to be placed on line (per LOP-RL-01)	Unit Supervisor notified that A TDRFP is ready to be placed on line	___	___	___
CUE	**Role Play Unit Supervisor as necessary to receive the report that A TDRFP is ready to be placed on line per LOP-RL-01**				
TERMINATING CUE: **Inform the candidate that the JPM is complete.**					

JPM Stop Time: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Startup of the Second TDRFP

JPM Number: S-FW-17 Revision Number: 00

Task Number and Title: 77.010 Given Unit Supervisor authorization, perform the Control Room actions to complete the startup of the TDRFP IAW station procedures.

K/A Number and Importance: 259001, A4.02, 3.9/3.7; Ability to manually operate and/or monitor in the control room: Manually start/control a RFP/TDRFP

Suggested Testing Environment: Simulator or Classroom

Alternate Path: ☒Yes ☐No SRO Only: ☐Yes ☒No Time Critical: ☐Yes ☒No

Reference(s):
LOP-FW-04, Rev. 62, Startup of Turbine Driven Reactor Feed Pump (TDRFP)
LOR-1PM03J-A307, Rev. 3, 1A TDRFP SEAL LEAKOFF DRAIN LINE TEMP HI

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 20 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐Yes ☐No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

Unit 1 is at 55% power with "B" TDRFP in 3E and the MDRFP in AUTO.

The Startup of Turbine Driven Reactor Feed Pump (TDRFP) Procedure, LOP-FW-04 is in progress for the 1A TDRFP and is complete up to Step E.2.11.

An EO is standing by to support the A TDRFP start at extension 2999.

INITIATING CUE

The Shift Supervisor has directed you to complete the start up of the 1A TDRFP IAW the Startup Of Turbine Driven Reactor Feed Pump (TDRFP) Procedure, LOP-FW-04, starting at Step E.2.11.

Inform the Unit Supervisor when you are ready to initiate the RWLC transfer sequence per LOP-RL-01.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Exelon Nuclear

Job Performance Measure

Load the Main Generator / Respond to a Generator Lockout

JPM Number: S-TG-02

Revision Number: 02

Date: 10/03/2014

Developed By:	_____ Instructor	_____ Date
Validated By:	_____ SME or Instructor	_____ Date
Reviewed By:	_____ Operations Representative	_____ Date
Approved By:	_____ Training Department	_____ Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00, This JPM was written NEW for the ILT 13-01 NRC Exam.

Revision 01, Revised per NRC feedback on the 45 Day Submittal.

Revision 02 Revised per NRC feedback during Prep Week

SRRS: 3D.105 (when utilized for operator initial or continuing training)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to an IC with the Turbine at 1800 rpm and ready to synchronize to the grid. (Use IC194 for the ILT 13-1 NRC Exam.)
2. Prior to loading the cae, complete the following panel lineups:
   - Complete LOP-TG-02 Steps E.1 through E.32.
   - Verify that the Digital EHC monitor is on the SPEED/LOAD screen.
3. Run STG02r02.cae to set up for the Generator Lockout (Alternate Path).
   - **trgset 21 "q6k003b8.eq.1 .or. q6k023b8.eq.1"** (Bus Tie 9-10 or 10-11 OCB Closed light on)
   - **ior q6m00lr8 off** (Gen Field Breaker OPEN light overridden OFF)
   - **ior q6m00rg8 on** (Gen Field Breaker CLOSED light overridden ON)
   - **ior q6m00ma8 off** (Gen Field Breaker AUTO TRIP light overridden OFF)
   - **imf mee049 (21 30)** (On trigger 21 after a 30 second delay, Generator electrical fault)
   - **trgset 25 "k6m00jt8.eq.1"** (Gen Field Breaker taken to TRIP)
   - **trgset 26 "k6m00jt8.eq.1"** (Gen Field Breaker taken to TRIP)
   - **trgset 27 "k6m00jt8.eq.1"** (Gen Field Breaker taken to TRIP)
   - **trg 25 "dor q6m00lr8"** (Gen Field Breaker OPEN light override deleted)
   - **trg 26 "dor q6m00rg8"** (Gen Field Breaker CLOSED light override deleted)
   - **trg 27 "dor q6m00ma8"** (Gen Field Breaker AUTO TRIP light override deleted)
4. Prepare a copy of LOP-TG-02 with Steps E.1 through E.32 signed off.
5. This completes the setup for this JPM.

INITIAL CONDITIONS

- You are the assist NSO
- A startup is in progress per LGP 1-1
- The Main Turbine is at 1800 rpm and LOP-TG-02 has been completed through Step E.32.

INITIATING CUE

- Synchronize and load the Main Generator in accordance with LOP-TG-02 steps E.33 through E.39

(Evaluator: Provide the prepared working copy of LOP-TG-02)

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1. E.33	VERIFY the following control switches are NOT in PULL-TO-LOCK. • BUS TIE 9-10 OCB • BUS TIE 10-11 OCB	At Panel 1PM01J, BUS TIE 9-10 OCB and BUS TIE 10-11 OCB control switches verified NOT in PTL	___	___	___
***2.** E.34	Place one of the following in ON: • BUS TIE 9-10 OCB SYNCHROSCOPE. • BUS TIE 10-11 OCB SYNCHROSCOPE.	Either OCB 9-10 and OCB 10-11 Synchroscope switch placed in ON	___	___	___
Note	**If no adjustment is required, then the following step is not a Critical Step.**				
***3.** E.35	Manually ADJUST Generator speed using Load Raise/Lower pushbuttons so generator output frequency is slightly higher than grid frequency, U1 GENERATOR SYNCHROSCOPE, meter on 1PM01J rotates slowly in the FAST direction.	Load Raise/Lower pushbuttons adjusted to achieve synchroscope meter rotation slowly in the FAST (clockwise) direction	___	___	___
***4.** E.36	Adjust Main Generator output voltage • If the Voltage Regulator is in Auto, then using GENERATOR TERMINAL VOLTS ADJUST, ADJUST Generator output voltage so U1 GENERATOR INCOMING VOLTS, is reading slightly higher than U1 GENERATOR RUNNING VOLTS.	Generator Terminal voltage adjusted to achieve Incoming Volts slightly higher than Running Volts	___	___	___
5. E.37	VERIFY the following: • U1 GENERATOR SYNCHROSCOPE, meter rotates slowly in the FAST direction. • U1 GENERATOR INCOMING VOLTS, is reading slightly higher than U1 GENERATOR RUNNING VOLTS.	Synchroscope meter rotation verified to be slowly in the FAST (clockwise) direction Generator Incoming Volts verified to be slightly higher than Running Volts	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*6. E.38 & E.38.1	Just prior to U1 GENERATOR SYNCHROSCOPE, meter reaching 12 o'clock position: • CLOSE the selected OCB and CHECK the breaker closes: ○ BUS TIE 9-10 OCB. ○ BUS TIE 10-11 OCB.	OCB 9-10 or OCB 10-11 (selected in JPM Step 17) closed just prior to synchroscope meter reaching 12 o'clock position Selected OCB Blue/Closed lights are ON Selected OCB Red/Open light is OFF	___	___	___
Note	**ALTERNATE PATH BEGINS HERE** **A Generator Lockout will occur 30 seconds after the first Main Generator Output breaker is closed. The next step becomes not applicable (N/A) if the generator trips prior to its implementation.**				
7. E.38.2	At 1PM02J EHC Workstation, RAISE Load Set Stpt to 105.0 % using either the Load Set Manual Adj. Raise pushbutton or by entering a target Load Set Setpoint and Ramp Rate.	Load Set Setpoint adjustment initiated	___	___	___
Note	**The following Operator Actions for the Turbine Trip and Generator Lockout may be performed in any order.** **The Operator Actions are virtually identical for the three Generator Lockout annunciators on 1PM01J: A102, U1GEN PROT RELAY TRIP; A202, U1 GEN SYS 1 LKO TRIP; and A302, U1 GEN SYS 2 LKO TRIP**				
8 LORs	Verify Turbine Trip	Turbine verified to be tripped by one or more of the following methods: • DEHC Screen Red TRIPPED bar • Annunciator 1PM02J-B308 in alarm • Audible alarm	___	___	___
Note	**If LOA-TG-101 is entered directly, go to JPM step 14. JPM Steps 9-11 are not applicable in that case. Critical Step 10 will be performed per LOA-TG-101 (JPM Step 21) rather than per the LOR.**				
9 LORs	Verify 345 OCBs 9-10 and 10-11 are open	OCBs 9-10 and 10-11 verified OPEN	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*10 LORs	Identifies that the Main Generator Exciter Field Breaker is NOT open and takes the control switch momentarily to TRIP.	Main Generator Exciter Field Breaker switch momentarily placed in TRIP and Switch indicates a GREEN FLAG	___	___	___
CUE	**When the Main Generator Exciter Field Breaker has been tripped, the JPM is complete.**				
11 LORs	Determine the cause of Generator 1 Trip System 1 and/or 2 Lockout	Investigation into cause of the Lockout initiated	___	___	___
CUE	**If directed to investigate, role play plant personnel as necessary.**				
12 LORs	Refer to LOA-TG-101	LOA-TG-101, Unit 1 Turbine Generator referenced	___	___	___
13 LORs	Notify Generation Dispatch	Generation Dispatch notified	___	___	___
CUE	**Role Play Load Dispatcher as necessary to acknowledge this report.**				
14 LOA-TG-101 B.1.1	CHECK Reactor Power – below 25% and stable. Alarms at 1H13-P603 – in ALARM: A211 and A212	The following alarms at 1H13-P603 verified to be alarming • A211, CHANNEL A1/B1 TCV & TSV TRIP BYPASS • A212, CHANNEL A2/B2 TCV & TSV TRIP BYPASS	___	___	___
15 LOA-TG-101 B.1.2	CHECK Turbine Bypass Valves - controlling Reactor pressure	Turbine Bypass Valve(s) verified open Reactor Pressure verified to be stable	___	___	___
16 LOA-TG-101 B.1.3	CHECK Turbine - TRIPPED.	Turbine verified to be tripped DEHC Screen Red TRIPPED bar displayed	___	___	___
17 LOA-TG-101 B.1.4	At either EHC Workstation on "Speed-Load" screen, from control menu, CHECK Speed Cmd - CLOSE VALVES	Speed Command (CMD) verified to be "CLOSE VALVES" at either EHC Workstation	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
18 LOA-TG-101 B.1.5	CHECK at least one of the following - CLOSED: • All MSVs. • All CVs	All Turbine Stop Valves or all Control Valves verified closed	___	___	___
19 LOA-TG-101 B.1.6	VERIFY Load Limit Setpoint at 2.0%. Adjusts as necessary	Load Limit Setpoint set at 2.0%.	___	___	___
20 LOA-TG-101 B.1.7	CHECK Generator OCBs 9-10 and 10-11 - OPEN.	OCBs 9-10 and 10-11 verified to be OPEN	___	___	___
Note	**If the Generator Field Breaker was opened in Step 10, then Step 21 is a repeat action is no longer a critical step.**				
***21** LOA-TG-101 B.1.8	CHECK Generator field breaker - OPEN.	Main Generator Exciter Field Breaker switch momentarily placed in TRIP and Switch indicates a GREEN FLAG	___	___	___
22 LOA-TG-101 B.1.9	CHECK Generator Voltage Regulator in - MANUAL.	Generator Voltage Regulator verified to be in MANUAL	___	___	___
Note	**Step B.1.10, checking that house loads have transferred to the SAT, is N/A.**				
23 LOA-TG-101 B.1.11	CHECK 1ES002, HI Press Htrs 16A/B Extrn Check Valve (Non-Return Valves) - CLOSED.	16A/B Extraction Steam Check Valve (Non-Return Valves) verified to be CLOSED.	___	___	___
24 LOA-TG-101 B.1.12	CHECK 1ES005, Lo Press Htrs 15A/B/C Extrn Check Valve (Non-Return Valves) – CLOSED.	Lo Press Htrs 15A/B/C Extraction Steam Check Valve (Non-Return Valves) verified to be CLOSED.	___	___	___
CUE	**Inform the candidate that another operator will check Extraction Steam lineups and monitor Turbine coastdown.**				
TERMINATING CUE: This completes this JPM.					

JPM Stop Time: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Load the Main Generator / Respond to a Generator Lockout

JPM Number: S-TG-02 Revision Number: 02

Task Number and Title: 71.028, Provided initial conditions, perform control Room actions for a Main Turbine Generator Trip (with Load <25%) IAW station procedures.

K/A Number and Importance: Turbine Trip, 295005 AA1.04 2.7/2.8
Ability to operate and/or monitor the following as they apply to Main Turbine Generator Trip: Main Generator controls.

Suggested Testing Environment: Simulator

Alternate Path: ☒ Yes ☐ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): LGP-1-1 Normal Unit Startup, Rev 108
LOP-TG-02, Turbine Generator Startup, Rev 75
LOR-1PM01J-A102, U1 Prot Relay Trip, Rev. 1
LOA-TG-101, Unit 1 Turbine Generator, Rev. 14

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 20 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

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Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

- You are the assist NSO
- A startup is in progress per LGP 1-1
- The Main Turbine is at 1800 rpm and LOP-TG-02 has been completed through Step E.32.

INITIATING CUE

- Synchronize and load the Main Generator in accordance with LOP-TG-02 steps E.33 through E.39.

Exelon Nuclear

Job Performance Measure

RCIC Inadvertent Initiation

JPM Number: S-RI-12

Revision Number: 04

Date: 10/02/2014

Developed By:	_____ Instructor	_____ Date
Validated By:	_____ SME or Instructor	_____ Date
Reviewed By:	_____ Operations Representative	_____ Date
Approved By:	_____ Training Department	_____ Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

1. **Revision 00,** New JPM written for the 2005 NRC Annual Exam by Gordon W. Beale.
2. **Revision 01,** Revised for formatting and current procedure revision.
3. **Revision 00** Rev. 0, based on Rev. 1, for ILT NRC 09-1 exam.
   (Should have been Rev 2)
4. **Revision 03** Updated to current template and procedures for ILT 13-1 NRC Exam. Renumbered JPM to the current numbering convention. Deleted "Time Critical" aspects of this JPM. Developed a Computer Aided Exercise (cae) and revised the Setup Instructions accordingly.
5. **Revision 04** Revised per the ILT 13-1 NRC Exam Prep Week comments

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to a full power IC. (Use IC193 for the ILT 13-1 NRC Exam.)

   NOTE: It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Go to RUN
3. Run the following cae to initiate RCIC: **SRI12r03.cae**
   - Activate Manual trigger 12:
     - **trg 12 "imf mnb080 55"** (Increases the auto initiation setpoint)

   As soon as 1E51-F045, F013, and F065 are full open (in approximately 20 seconds):

   - Activate Manual trigger 22:
     - **trg 22 "set vmrj013r=1e6"** (Sets the stroke time of 1E51-F013, Injection Valve)

   Then immediately place the simulator in FREEZE.
4. Place the simulator in RUN only after the examinee has acknowledged the initiating cue.
5. Ensure the performance of this JPM does not interfere with the performance of any other JPMs.
6. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the noted steps on the Job Performance Measure Validation Checklist.
7. This completes the setup for this JPM.

INITIAL CONDITIONS

- You are the Unit Assist NSO.
- Unit 1 is at full power.
- The 'RCIC RUNNING' alarm has just been received.
- The initiation has been determined to be inadvertent.

INITIATING CUE

The Unit Supervisor has directed you to shutdown the RCIC system.

Do not reset the RCIC turbine.

Inform the Unit Supervisor when all required actions to shutdown the RCIC System are complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
SIMOP	**Wait until the Initial Conditions have been presented to the candidate, then place the Simulator in RUN.**				
Note	**There are no steps in LOP-RI-03 for taking the U1 Main & FW Turb Trip Logic Bypass switches to BYPASS.** **The candidate must recognize the failure of Inject Valve 1E51-F013 to close and refer to LOR-1H13-P601-D406 for the Alternate Path actions.**				
***01** LOR 2.a	TRIP RCIC Turbine.	RCIC Turbine Trip pushbutton depressed			
02 LOR 2.b	Verify Inject Valve 1E51-F065 is full closed	Verifies that 1E51-F065 has closed	___	___	___
Note	**ALTERNATE PATH BEGINS HERE.**				
03 LOR 2.b	Verify Inject Valve 1E51-F013 is full closed; identifies that it remains open	1E51-F013 identified (stuck) open.	___	___	___
Note	**JPM Step 4 must be completed within 4 minutes of the start of the JPM.**				
***04** LOR 2.b	IF 1E51-F013 and/or 1E51-F065 is NOT full closed (following the RCIC Turbine trip) PLACE Feedwater Turbine Trip NORMAL-BYPASS keylock **SWITCHES** to BYPASS until problem is corrected.	1E51-F013 Open U1 Main & FW Turb Trip Logic Bypass placed in BYPASS **Before** the TDRFPs trip.	___	___	___
Note	**In JPM Step 4, the Candidate may also bypass 1E51-F065. However, this action is not critical because the condition is corrected as soon as the 1E51-F013 Bypass Switch is in BYPASS.**				
Note	**The remaining steps are from LOP-RI-03. They may no longer be applicable if the actions were taken per the LOR.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
05 LOP E.3.1	VERIFY 1E51-R600, RCIC Pump Discharge Flow Controller, in AUTO.	Pump Discharge Flow Controller verified in AUTO.			
6 LOP E.3.2	TRIP RCIC Turbine.	RCIC Turbine Trip pushbutton depressed			
07 LOP E.3.3	VERIFY RCIC Turbine trips and pump flow decreases to zero	RCIC Pump Discharge Flow (as indicated on 1E51-R606) verified a 0 gpm			
Note	**The candidate may reference LOR-1H13-P601-D406 when the annunciator is identified as NOT CLEAR in the next step.**				
08 LOP E.3.4	VERIFY the following alarms on panel 1H13-P601: • D103, RCIC TURB OIL PRESS LO, ALARMS • D104, RCIC TURBINE TRIP, ALARMS • D205, RCIC PMP DSCH FLOW LO, ALARMS • D406, RCIC RUNNING, CLEARS	Annunciators D103, D104, and D205 verified alarming on 1H13-P601: On 1H13-P601, Annunciator D406 recognized as NOT cleared			
TERMINATING CUE: **Inform the candidate that another NSO will continue with the investigation of the inadvertent actuation.** **This JPM is complete.**					

JPM Stop Time: _____

JPM SUMMARY

Operator's Name:_____
Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title:
RCIC Inadvertent Initiation

JPM Number: S-RI-12 Revision Number: 04

Task Number and Title: 32.004 Given Unit Supervisor Authorization, perform Control Room actions to shutdown the RCIC System following operation, IAW Station Procedures.

K/A Number and Importance: 217000 RCIC A2.01, 3.8/3.7, Ability to (a) predict the impacts of the following on the RCIC; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: System initiation signal

Suggested Testing Environment: Simulator

Alternate Path: ☒ Yes ☐ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): LOR-1H13-P601-D406, RCIC RUNNING, Rev. 4
LOP-RI-03, Rev 16, RCIC System Isolation and System Shutdown

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 04 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments:_____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

- You are the Unit Assist NSO.
- Unit 1 is at full power.
- The 'RCIC RUNNING' alarm has just been received.
- The initiation has been determined to be inadvertent.

INITIATING CUE

The Unit Supervisor has directed you to shutdown the RCIC system.

Do not reset the RCIC turbine.

Inform the Unit Supervisor when all required actions to shutdown the RCIC System are complete.

Exelon Nuclear

Job Performance Measure

Secure the Drywell Inerting Lineup

JPM Number: S-VQ-13

Revision Number: 01

Date: 09/25/2014

Developed By:	Instructor	Date
Validated By:	SME or Instructor	Date
Reviewed By:	Operations Representative	Date
Approved By:	Training Department	Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00 This JPM was developed new for ILT 13-1 NRC Exam.

Revision 01, Revised per NRC feedback on the 45 Day Submittal.

SIMULATOR SETUP INSTRUCTIONS

1. Reset to a Startup IC. (Use IC 194 for the ILT 13-1 NRC Exam)
   - Use an IC with Drywell inerting in progress.
   - Use an IC with the Drywell inerted with normal makeup in service and then shift into a Drywell inerting lineup.
2. Verify the following:
   - Primary Containment Ventilation System is in service
   - AI-CM063, Sup Chbr/DW Oxygen Monitor is in service
   - PC Press CV Selector switch is in the SUPPLY position
   - 1PC-VQ019, PC Press Controller, is in MANUAL
   - 1PC-VQ019 PC Press Controller is open
   - The following valves on 1PM06J are CLOSED:
     - 1VQ047
     - 1VQ048
     - 1VQ050
     - 1VQ051
   - MCR Recirc Charcoal Filter unit is in service
   - AEER Recirc Charcoal Filter unit is in service
   - The following valves on 1PM06J are OPEN
     - 1VQ042
     - 1VQ030
     - 1VQ034
     - 1VQ036
     - 1VQ057
     - 1VQ058
   - Drywell O2 concentration <1% on 1AI-CM063
   - Drywell pressure at 1PI-VQ019 (on 1PM06J) is ≤ +.5psig

SIMULATOR SETUP INSTRUCTIONS (Continued)

3. Provide a working copy of LOP-VQ-04 (Entire LOP) marked up as follows:
   - Sections A, B, C & D; all steps circled and slashed except the following which are N/A:
     - B.1.3, B.1.7, & B.1.8
   - Section E.1; all steps circled and slashed except the following which are N/A:
     - E.1.1 2nd and 3rd bullets
   - Section E.2; all steps circled and slashed except the following which are N/A:
     - E.2.2 5th bullet
     - E.2.3, E.2.6 and E.2.8 through E.2.8.2.3
   - Section E.3 unmarked
   - Section E.4; Steps E.4.2 and E.4.2.5, only the 1st bullet circled and slashed. All other steps up to E.4.3 circled and slashed
   - Section E.5;
     - The following steps marked N/A
       - The second bullets of Steps E.5.6 and E.5.6.1
       - Step E.5.6.2
       - Steps E.5.9 through E.5.9.3
       - Step E.5.15.2
       - Step E.5.17, 2nd and 3rd open bullets
       - All E.5.18 steps
       - Steps E.5.21 to E.5.28
     - All other steps circled and slashed up to Step E.5.21
   - Section E.6;
     - The following steps marked N/A
       - The second bullets of Steps E.6.6 and E.6.6.1
       - Step E.6.6.2
       - Steps E.6.9 through E.6.9.3
       - Step E.6.15.2
       - Step E.6.17, 2nd and 3rd open bullets
     - All other steps circled and slashed up to Step E.6.18
   - Section E.14 unmarked
   - Attachment A
     - Use "Today"/"12Hours ago" for 0A VC and VE Charcoal Filter Startup Date/Times
     - Leave 0A VC and VE Charcoal Filter Shutdown Date/Times blank
     - Mark 0B Startup and Shutdown Date/Times N/A

INITIAL CONDITIONS

- You are an extra NSO on Unit 1.
- A Startup is in progress.
- The Suppression Chamber has been inerted and Drywell inerting is in progress.
- Drywell O2 concentration has lowered to less than 1%.

INITIATING CUE

Secure the Drywell inerting lineup and establish normal Nitrogen makeup to the Drywell per LOP-VQ-04.

(Provide the candidate with the marked up copy of LOP-VQ-04)

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note	**All steps are from LOP-VQ-04 unless otherwise specified.**				
***1.** E.6.18	When Drywell oxygen concentration is stable at less than 1% by volume and is no longer decreasing, CLOSE the following valves at Control Room Panel 1PM06J: • 1VQ042, DW N2 Inerting Isol Vlv. • 1VQ030, DW Vent/Purge Inlt Dwnst Isol Vlv. • 1VQ034, DW Vent/Purge Otlt Upstrm Isol Vlv. • 1VQ036, DW Vent/Purge Otlt Dwnst Isol Vlv.	The following valve are CLOSED: • 1VQ042 • 1VQ030 • 1VQ034 • 1VQ036	___	___	___
CUE	**Role Play Unit Supervisor for Step E.6.19: It is NOT desired to monitor the Suppression Chamber O2 concentrations**				
Note	**Step E.6.20 is Not Applicable because the Suppression Chamber has already been inerted.**				
Note	**In Step E.6.21, it takes >40 seconds for 1PC-VQ019 to stroke closed.**				
***2.** E.6.21	If 1PC-VQ019, PC Press Controller, is operable, CLOSE 1VQ053 using 1PC-VQ019.	1VQ053 closed using 1PC-VQ019	___	___	___
Note	**Step E.6.22 is Not Applicable because 1PC-VQ019 Is operable**				
3. E.6.23	SECURE the VQ Storage Tank Line-up per Step E.17.4.	EO directed to secure the VQ Storage Tank Line-up	___	___	___
CUE	**Role Play EO as necessary when directed to secure the VQ Storage Tank Line-up per Step E.17.4. (No further action will be necessary.)**				
4. E.6.24	Locally, VERIFY the following valves CLOSED: • 1VQ057, Pri Cnmt N2 Inerting Press Cont Vlv Upstrm Valve. • 1VQ058, Pri Cnmt N2 Inerting Press Cont Vlv Dwnst Valve.	EO directed to verify that 1VQ057 and 1VQ058 are closed	___	___	___
CUE	**Role Play EO as necessary when directed to close 1VQ057 and 1VQ058. Report that both valves are closed. (No further action will be necessary.)**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
5. E.6.25	SHUTDOWN Primary Containment Vent and Purge System per Section E.3.	Section E.3 referenced	___	___	___
***6.** E.3.2	STOP 1VQ01C, PC Purge Sys Exhaust Fan.	Control Switch for 1VQ01C taken to STOP	___	___	___
7. E.3.3	CHECK CLOSED 1VQ02Y, PC Purge Filt Trn Otlt Isol Vlv.	1VQ02Y checked closed	___	___	___
8. E.3.4	CHECK CLOSED 1VQ01Y, PC Purge Filt Trn Inlt Isol Vlv.	1VQ01Y checked closed	___	___	___
9. E.3.5	Close the following dampers: • 1VQ03Y, RWCU Areas Exhaust Isol Damper. • 2VQ03Y, RWCU Areas Exhaust Isol Damper. • 1VQ037, VQ Train Inlet Upstrm Isol Vlv. • 1VQ038, VQ Train Inlet Dwnst Isol Vlv. • Verifiy closed 1VQ041, RB Exhaust Dsch Valve.	The following valve are CLOSED: • 1VQ03Y • 2VQ03Y • 1VQ037 • 1VQ038 • 1VQ041	___	___	___
CUE	**Role Play Unit 2 NSO if asked about 2VQ03Y. Report that 2VQ03Y is closed.**				
CUE	**Role Play as Unit Supervisor if asked about EST cards. Report that no ESTs were placed**				
10. E.3.6	NOTIFY Chemistry Department that purging operations are complete.	Chemistry Department notified that purging operations are complete.	___	___	___
CUE	**Role Play as Chemistry Dept personnel as necessary to acknowledge this report.**				
11. E.6.26	If NO longer required, SHUTDOWN MCR Recirc Charcoal Filter Unit per Section E.4.	Section E.4.3 referenced	___	___	___
12. E.4.3.1	CHECK 0A(B) Recirc Charcoal Filter operation is no longer required.	MCR Recirc Charcoal Filter operation verified to be no longer required.	___	___	___
CUE	**Role Play Unit Supervisor: Verify that MCR Recirc Charcoal Filter operation is no longer needed.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
***13.** E.4.3.2	PLACE 0A(B) CR HVAC Charcoal Filter Damper Control switch to BYPASS position.	0A(B) CR HVAC Charcoal Filter Damper Control switch placed in BYPASS	___	___	___
CUE	**If asked, report that there is no smoke present in the return air.**				
14. E.4.3.4	CHECK following Damper positions: • Inlet 0VC11YA(B) is CLOSED. • Outlet 0VC12YA(B) is CLOSED. • Bypass 0VC13YA(B) is OPEN.	Damper positions checked: • 0VC11YA/B CLOSED • 0VC12YA/B CLOSED • 0VC13YA/B OPEN	___	___	___
15. E.4.3.5	RECORD Date/Time of 0A(B) VC Recirc Charcoal Filter shutdown on Attachment A.	Date/Time of 0A(B) VC Recirc Charcoal Filter shutdown recorded on Attachment A	___	___	___
16. E.4.3.6	FORWARD Attachment A to Trend Analyst for tracking 0A(B) VC Recirc Charcoal Filter operation.	Attachment A forwarded to Trend Analyst	___	___	___
CUE	**Role Play Unit Supervisor as necessary and take Attachment A from the candidate for forwarding. (This may be done after VE has been stopped.)**				
17. E.6.27	If NO longer required, SHUTDOWN AEER Recirc Charcoal Filter Unit per Section E.4.	Section E.4.4 referenced	___	___	___
CUE	**Role Play Unit Supervisor: Verify that the AEER Recirc Charcoal Filter operation is no longer needed.**				
18. E.4.4.1	Directs an EO to SHUTDOWN AEER Recirc Charcoal Filter Unit per Section E.4.	EO directed to shutdown AEER Recirc Charcoal Filter Unit per Section E.4.	___	___	___
CUE	**Role Play EO as necessary when directed to shutdown the AEER Recirc Charcoal Filter operation. (No further action will be necessary.)**				
19. E.6.28	Align the VQ System for Normal Make-Up per Sections E.14	Section E.14 referenced	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
20. E.14.1	OPEN the following valves locally: • 1VQ054, Pri Cnmt N2 Makeup Press Cont Vlv Dwnst Valve. • 1VQ055, Pri Cnmt N2 Makeup Press Cont Vlv Upstrm Valve.	EO directed to open the following valves: • 1VQ054 • 1VQ055	___	___	___
CUE	**Role Play as EO when directed to open 1VQ054 and 1VQ055 per Step E.14.1. Report that both valves are open. (No further action is necessary.)**				
***21.** E.14.2.1	PLACE PC Press CV Selector switch to MAKEUP position to establish control of pressure control valve 1VQ052.	PC Press CV Selector switch selected to MAKEUP	___	___	___
***22.** E.14.2.2	PLACE 1PC-VQ019, PC Press Contlr in MANUAL and CLOSE 1VQ052.	1PC-VQ019, placed in MANUAL and CLOSED	___	___	___
Note	**Step E.14.2.2 may have been completed previously.**				
***23.** E.14.2.3	OPEN the following valves: • 1VQ047, DW N2 Makeup Dwnst Isol Vlv. • 1VQ048, DW N2 Makeup Upstrm Isol Vlv. • 1VQ050, SP N2 Makeup Dwnst Isol Vlv. • 1VQ051, SP N2 Makeup Upstrm Isol Vlv.	The following valves are OPEN: • 1VQ047 • 1VQ048 • 1VQ050 • 1VQ051	___	___	___
***24.** E.14.2.4	PLACE 1PC-VQ019, PC Press Contlr, in AUTO.	1PC-VQ019 Controller placed in AUTO	___	___	___
25. E.14.2.5	Verify 1PC-VQ019, PC Press Contlr, setpoint is at +0.2 psig.	1PC-VQ019 setpoint is reading approximately +0.2 psig.	___	___	___
TERMINATING CUE: **This completes this JPM.**					

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Secure the Drywell Inerting Lineup

JPM Number: S-VQ-13 Revision Number: 01

Task Number and Title: 93.003 Given Unit Supervisor authorization, perform the Main Control Room actions to Inert/De-inert the Suppression Chamber or the Drywell IAW station procedures

K/A Number and Importance: 223001 Primary Containment System and Auxiliaries A4.10 IR 3.2; Ability to manually operate and/or monitor in the control room: Drywell nitrogen makeup: Mark-I,II

Suggested Testing Environment: Simulator

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): LOP-VQ-04, Rev. 36, Startup, Shutdown, and Operations of the Primary Containment Vent and Purge System

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 20 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

- You are an extra NSO on Unit 1.
- A Startup is in progress.
- The Suppression Chamber has been inerted and Drywell inerting is in progress.
- Drywell O2 concentration has lowered to less than 1%.

INITIATING CUE

Secure the Drywell inerting lineup and establish normal Nitrogen makeup to the Drywell per LOP-VQ-04.

Exelon Nuclear

Job Performance Measure

Perform Loss of Bus 141Y Hard Card

JPM Number: S-AP-05

Revision Number: 06

Date: 08/22/2014

Developed By:	Instructor	Date
Validated By:	SME or Instructor	Date
Reviewed By:	Operations Representative	Date
Approved By:	Training Department	Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00 Information Not Available

Revision 01 Information Not Available

Revision 02 Revised for current procedure revision and JPM template.

Revision 03 Made steps 1 and 3 critical and 7 non-critical because it could not be completed.

Revision 04 Added new checklist. Added success criteria for the alternate path. Simulator setup steps were added for 1B WR pump and 1B CRD Pump being verified off.

Revision 05 Updated for procedure revision.

Revision 06 Updated to current template and procedures for ILT 13-1 NRC Exam.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to a full power IC. (Use IC193 for the ILT 13-1 NRC Exam.)
2. Go to RUN
3. Verify the following:
   - 1B CRD Pump is off
   - 1B WR is off
   - 0 WR pump is aligned to Unit 2
4. Run the CAEP for this JPM: **SAP05r06.cae**
   - **imf mdg016** (O DG Engine fails to start)
   - **imf mee141** (Bus Tie Breaker 1415 fails to close)
   - **imf mee136** (Breaker 1412 fails open)
   - **irf iau2xtie close** (Unit Tie Breaker 2414 closed)
5. Silence and acknowledge annunciators.
6. Freeze the simulator until the first Candidate enters.
7. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the noted steps on the Job Performance Measure Validation Checklist located on page.
8. This completes the setup for this JPM.

INITIAL CONDITIONS

You are an assist NSO.

1. Unit 1 has had a Loss of 141Y due to Breaker 1412 opening.
2. 0 DG did not start and LOA-DG-101 is in progress.
3. Unit 2 is at 100% Power with a normal electric plant lineup.
4. 0 WR Pump is lined up to Unit 2.
5. Operators are standing by to assist you.

INITIATING CUE

The Unit 1 Supervisor has directed you to perform Loss of 141Y Hard Card.

You are to inform the Unit 1 Supervisor when Bus 141Y is energized.

Another NSO will perform RPS Quick Swap Hardcard and the IN Cross-Tie Hardcard.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*1.	Verify one WR Pump is running.	Examinee starts 1B WR Pump.	___	___	___
CUE	**Another NSO will follow up with LOP-WR-02.**				
2.	Verify one CRD Pump running. Verify CRD Charging Header Pressure is >500 psig.	Examinee identifies no CRD Pump running and verifies CRD Charging Header Pressure is >500 psig.	___	___	___
*3.	START standby CRD Pump by HOLDING Control Switch to START position for at least 5 seconds, and then release.	Examinee starts 1B CRD Pump by HOLDING Control Switch to START position for at least 5 seconds, and then releases the switch.	___	___	___
CUE	**Another NSO will follow up with LOP-RD-01.**				
Note	**STEP #4 may be N/A as it is on the RPS Hard Card.** **If requested, the examinee MAY complete the IA to IN Cross-Tie.**				
4.	Check IN Supplying drywell loads. OPEN 1IN059 and 1IN060, Instrument Air to Drywell Pneumatics Crosstie Valves. OPEN 1IN017, Drywell Pneumatics 100 lb. Header Isolation Valve.	Examinee verifies that IN is NOT supplying drywell loads. Examinee opens 1IN059 and 1IN060, Instrument Air to Drywell Pneumatics Crosstie Valves. Examinee verifies, opens 1IN017, Drywell Pneumatics 100 lb. Header Isolation Valve.	___	___	___
5.	VERIFY annunciator 1PM01J-A214, 141X/Y Overcurrent alarm is CLEAR.	Examinee checks Panel 1PM01J A214 CLEAR.	___	___	___
6.	Verify all three phase voltages are approximately equal using the 141X/Y Voltmeter switch.	Examinee verifies all three phases of voltages equal, using the 141X/Y Voltmeter switch.	___	___	___
Note	**Alternate Path begins here.** **Successful completion of the JPM is re-energizing 141Y from Unit 2.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
7.	If 141X is energized, synchronize and close ACB 1415.	Examinee verifies all three phases of voltages equal, using the 141X/Y Voltmeter switch. Examinee places Synchroscope Select Switch to ON for breaker 1415 Examinee attempts to close ACB 1415 and determines it will not close	___	___	___
CUE	**Role Play as Unit Supervisor if notified the ACB 1415 did not close. If necessary the initiating cue may be repeated: "Inform me when Bus 141Y is energized."**				
8.	CHECK BUS 241Y powered from Unit-2 SAT.	The Examinee checks that Bus 241Y is powered from the Unit 2 SAT	___	___	___
CUE	**Bus 241Y is powered from the Unit 2 SAT as provided in initial conditions.**				
9.	CHECK ACB 2415 is OPEN	The Examinee checks that ACB 2415 is open.	___	___	___
CUE	**Unit 2 NSO reports that ACB 2415 is open.**				
*10.	SYNCHRONIZE and CLOSE ACB 2414.	The Examinee requests that Unit 2 close ACB 2414.	___	___	___
CUE	**Unit 2 NSO reports ACB 2414 is closed.**				
*11.	SYNCHRONIZE and CLOSE ACB 1414.	Examinee places Synchroscope Select Switch to ON for breaker 1414. Examinee closes ACB 1414.	___	___	___
Note	**Power is restored to Bus 141Y**				
12.	INFORM the Unit Supervisor.	The Examinee informs the Unit 1 Supervisor that Bus 141Y is energized.	___	___	___
TERMINATING CUE: The JPM is complete Bus 141Y is energized and the Unit 1 Supervisor is notified.					

JPM Stop Time: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Perform Loss of Bus 141Y Hard Card

JPM Number: S-AP-05 Revision Number: 06

Task Number and Title: 5.008, Provided initial conditions respond to a loss of 4KV ESS bus IAW station procedures.

K/A Number and Importance: 295003, AA1.01, 3.7/3.8. Ability to operate and/or monitor the following as they apply to Partial or Complete Loss of AC: A.C. electrical distribution system

Suggested Testing Environment: Simulator

Alternate Path: ☒Yes ☐No SRO Only: ☐Yes ☒No Time Critical: ☐Yes ☒No

Reference(s):
LOPA-AP-101, Rev 46, Attachment U, Loss of 141Y Hard Card

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 15 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐Yes ☐No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

You are an assist NSO.

1. Unit 1 has had a Loss of 141Y due to Breaker 1412 opening.
2. 0 DG did not start and LOA-DG-101 is in progress.
3. Unit 2 is at 100% Power with a normal electric plant lineup.
4. 0 WR Pump is lined up to Unit 2.
5. Operators are standing by to assist you.

INITIATING CUE

The Unit 1 Supervisor has directed you to perform Loss of 141Y Hard Card.

You are to inform the Unit 1 Supervisor when Bus 141Y is energized.

Another NSO will perform RPS Quick Swap Hardcard and the IN Cross-Tie Hardcard.

Exelon Nuclear

Job Performance Measure

BYPASS INOP OPRM

JPM Number: S-NR-10

Revision Number: 01

Date: 08/22/2014

Developed By: _____ Instructor _____ Date

Validated By: _____ SME or Instructor _____ Date

Reviewed By: _____ Operations Representative _____ Date

Approved By: _____ Training Department _____ Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00, New JPM for 2009 Annual Exam.

Revision 01, Updated to current JPM template for the ILT 1301 NRC Exam.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any full power IC. (Use IC193 for the ILT 13-1 NRC Exam.)

NOTE:	It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently. {Delete this NOTE if **not** applicable.}

2. Insert OPRM INOP Malfunction for G OPRM.
   - MOP007
3. Insert the following malfunctions – then DELETE them.
   - MRP033
   - MRP027
4. Turn the OPRM A TRIP Annunciator ON (1H13-P603-B309)
   - ANN-R1203
5. Verify on the SER Typer that:
   - G OPRM is INOP.
   - G OPRM is TRIPPED.
6. Verify Backpanel OPRM indication shows G OPRM INOP.
7. Verify A RPS ½ SCRAM has occurred.
8. Acknowledge all alarms and place Simulator in FREEZE.
9. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.
10. This completes the setup for this JPM.

INITIAL CONDITIONS

You are the Assist NSO on Unit 1.

A half scram has just occurred on Unit 1.

The half scram appears to be due to the 'G' OPRM.

INITIATING CUE

The Unit Supervisor has directed you to follow-up with the actions of LOR-1H13-P603-B309.

You are to report your actions to the Unit Supervisor when you are complete with the LOR.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	Retrieves LOR-1H13-P603-B309 for use.	Examinee retrieves LOR-1H13-P603-B309 for use.	___	___	___
2.	Verifies Auto Actions of A RPS Channel A Trip.	Examinee verifies A RPS ½ Scram occurs	___	___	___
3.	OBSERVES APRM recorders and LPRM meters for flux oscillations greater than two times normal peak to peak.	Examinee OBSERVES that APRM recorders and LPRM meters for flux oscillations and see that they are NOT greater than two times normal peak to peak.	___	___	___
CUE	**If the candidate decides to refer to LOA-RR-101, inform the candidate that another NSO will perform that procedure.**				
4.	If Channel A OPRM TRIP was spurious: DETERMINE if one OPRM module has failed or is INOP (G).	Examinee DETERMINES one OPRM module has failed and is INOP (G).	___	___	___
Note	**SER typer shows G OPRM INOP and TRIPPED.** **Back panel (1H13-P608) OPRM indication should also show the OPRM INOP.**				
SIMOP	**AFTER the OPRM Keyswitch is taken to BYPASS,** **DELETE the OPRM TRIP Annunciator ALARM (ANN-R1203)** **Ensure the OPRM TRIP Annunciator has been deleted before the candidate returns to the front panel area.**				
*5.	BYPASS inoperable OPRM (G).	Examinee Bypasses the inoperable OPRM (G) with the keyswitch at the 1H13-P608 panel.	___	___	___
Note	**This action is taken at 1H13-P608**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*6.	RESET RPS Channel A.	Examinee RESETS RPS Channel A by taking the SCRAM RESET SWITCH to the GP 1/4 and GP 2/3 positions.	___	___	___
Note	**This action is taken at 1H13-P603**				
7.	INITIATE appropriate corrective actions for inoperative OPRM (G).	Examinee notifies the Unit Supervisor that the (G) OPRM has been bypassed due to it being INOP, half scram is reset and corrective actions need to be taken.	___	___	___
CUE	**Acknowledge Report.**				
8.	Refer to Tech Spec. 3.3.1.3.	Examinee notifies Unit Supervisor that Tech Spec. 3.3.1.3 needs to be referred to.	___	___	___
CUE	**Acknowledge Report.**				
TERMINATING CUE: **Inform the Examinee that the JPM is Complete.**					

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Bypass INOP OPRM

JPM Number: S-NR-10 Revision Number: 01

Task Number and Title: 55.001, Provided initial conditions, perform Control Room Actions in Response to OPRM Trouble IAW station procedures

K/A Number and Importance: 212000 A4.14 Ability to manually operate and/or monitor in the control room: Reset system following system activation 3.8 / 3.8

Suggested Testing Environment: Simulator

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): LOR-1H13-P603-B309, Rev. 3 CHAN A OPRM TRIP

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 13 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

You are the Assist NSO on Unit 1.

A half scram has just occurred on Unit 1.

The half scram appears to be due to the 'G' OPRM.

INITIATING CUE

The Unit Supervisor has directed you to follow-up with the actions of LOR-1H13-P603-B309.

You are to report your actions to the Unit Supervisor when you are complete with the LOR.

Exelon Nuclear

Job Performance Measure

Starting Service Water Pumps to Maintain Fire Header Pressure

JPM Number: S-FP-01

Revision Number: 02

Date: 10/02/2014

Developed By:	_____ Instructor	_____ Date
Validated By:	_____ SME or Instructor	_____ Date
Reviewed By:	_____ Operations Representative	_____ Date
Approved By:	_____ Training Department	_____ Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00 This is a new JPM written for the 07-01 ILT NRC

Revision 01 Updated to current template and procedures for ILT 13-1 NRC Exam.

Revision 02 Revised the task number and statement in response to NRC feedback on the ILT 13-1 NRC Exam 45 Day Submittal.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC196.

NOTE: It is okay to use a similar IC to the IC listed above, provided the IC used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Line up Service Water as follows:
   - The following pumps running:
     - 1A Service Water pump
     - Common Service Water pump
     - 0A Service Water Jockey pump
3. Run the CAEP for this JPM: **SFP01r02.cae**
   - **ior k7b08ib9 false** (Disables the A Diesel Fire Pump START switch)
   - **ior k7b09ib9 false** (Disables the B Diesel Fire Pump START switch)
   - **ior k7b22jp9 stop** (Trips the 0A Jockey Fire Pump)
   - **ior k7b23jp9 stop** (Trips the 0B Jockey Fire Pump)
   - **imf r1014** (1PMJ10 B101 0A DIESEL FIRE PUMP TROUBLE overridden ON)
   - **imf r1019** (1PMJ10 B102 0B DIESEL FIRE PUMP TROUBLE overridden ON)
   - **imf r1062** (1PMJ10 B302 0A FIRE JOCKEY PUMP AUTO TRIP overridden ON)
   - **imf r1061** (1PMJ10 B303 FIRE DET CONT PANEL TROUBLE overridden ON)
   - **imf r1020** (1PMJ10 B401 FIRE PROT HEADER PRESS LO overridden ON)
   - **imf r1251** (1PMJ10 B407 FP INTER JOCKEY PUMP RUNNING overridden ON)
   - **ior q7b08rr9 off** (A Diesel Fire Pump ON light OFF)
   - **ior q7b09rr9 off** (B Diesel Fire Pump ON light OFF)
   - **ior q7b08ma9 on** (A Diesel Fire Pump TRIP light ON)
   - **ior q7b09ma9 on** (B Diesel Fire Pump TRIP light ON)
   - **ior q7b08lg9 on** (A Diesel Fire Pump OFF light ON)
   - **ior q7b09lg9 on** (B Diesel Fire Pump OFF light ON)
   - **ior g8c99g19 100** (Overrides Fire Header Indication to 100 psig)
   - **trg 11 "ior g8c99g19 127"** (Overrides the Fire Header Pressure Indication to 127 psig)
   - **trg 12 "ior g8c85g14 130"** (Overrides the WS Pump Disch Pressure Indication to 130 psig)
   - **trg 13 "ior g8c86g14 120"** (Overrides the WS Header Pressure Indication to 120 psig)
   - **trg 14 "dmf r1020"** (Clears the Fire Header Low Pressure Alarm)
4. Silence, Acknowledge and Reset the annunciators, then acknowledge the Process Computer Alarms.
5. Clear BOTH Sequence of Events Recorder (SER) monitor screens.
6. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.
7. The following materials will be provided to the examinee:
   - LOA-FP-101, Unit 1 Fire Protection System Abnormal, Attachment A
8. The following materials will be available to the examinee:
   - LOP-WS-03, Service Water Pump Shutdown
9. This completes the setup for this JPM.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

You are an Extra NSO assigned to Unit 1.

A large fire is in progress inside the lake screen house. The fire is on the west side of the ground floor.

Both Diesel Fire Pumps and the Jockey Fire Pumps have tripped due to the fire. The Intermediate Jockey Fire Pump remains running

Normal AC power remains available to the Lake Screen House.

All Service Water Pumps are available.

INITIATING CUE

The Unit Supervisor has directed you to start additional Service Water pumps to maintain fire header pressure greater than or equal to 125 psig in accordance with LOA-FP-101, "Unit 1 Fire Protection System Abnormal", Attachment A.

You are to INFORM the Unit Supervisor when LOA-FP-101 Attachment A is completed up to and including Step 5.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
SIMOP	**Call up the Analog Output Override From Screen 1PM10J-01 for Fire Pump Header Pressure (g8c99g19)**				
Note	**Provide a copy of LOA-FP-101 Attachment A after the examinee has acknowledged the initiating cue.**				
1. Attachment A Step 1	If a fire is in progress, GO TO Step 3.	Determines that a fire is in progress and GOES TO Step 3.	___	___	___
***2.** Attachment A Step 3	START desired Service Water Pump at 1PM09J: ○ 1WS01PA ○ 1WS01PB ○ 2WS01PA ○ 2WS01PB ○ 0WS01P	• Determines that an additional Service Water Pump must be started and STARTS the pump by taking the appropriate control switch to START.			
CUE	**If Candidate asks about Unit 2 WS Pumps, inform the candidate that Unit 2 WS Pumps are not available.**				
SIMOP	**When the 1WS01PB pump is started, activate Manual Triggers 11, 12, 13,& 14 and verify the following:** **trg 11 "ior g8c99g19 127" (Overrides the Fire Header Pressure Indication to 127 psig)** **trg 12 "ior g8c85g14 130" (Overrides the WS Pump Disch Press Indication to 130 psig)** **trg 13 "ior g8c86g14 120" (Overrides the WS Header Pressure Indication to 120 psig)** **trg 14 "dmf r1020" (Clears the Low Pressure Alarm)**				
3. Attachment A Step 4	VERIFY Service Water PMP Amps are normal at 1PM10J: • ≤ 160 amps	• VERIFIES that running Service Water Pump amps are ≤ 160 amps.	___	___	___
Note	**The CAUTION before Step 5 warns about operating the Service Water Jockey Pump with a header pressure > 115 psig.**				
4. Attachment A Step 5	If a Service Water Jockey Pump is running, SHUT it down per LOP-WS-03 while continuing with subsequent actions.	Determines that 0A Service Water Jockey Pump 0WS02PA is running and is required to be shutdown.	___	___	___

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE	**Provide the examinee with a copy of LOP-WS-03 when it is identified that the procedure is needed and the examinee has located the procedure in the simulator.**				
***5.** LOP-WS-03 Step E.1	On panel 1PM09J, STOP desired pump.	Examinee takes control switch 0WS-02PA to Stop.	___	___	___
6. LOP-WS-03 Step E.2	VERIFY stopped Service Water Pump or Service Water Jockey Pump discharge check valve is closed by observing the pump shaft stops rotating and does not begin to rotate in reverse.	Directs an NLO to check that 0WS02PA shaft stopped rotating when the pump was stopped	___	___	___
CUE	**Inform the examinee that the shaft has been checked for Service Water Jockey pump 0WS02PA and the shaft is stopped.**				
7. LOP-WS-03 Step E.2.1	If the pump discharge check does not close	Identifies that this step does not apply, marks the step N/A and continues on to step E.3 of LOP-WS-03.	___	___	___
CUE	**(LOP-WS-03 Step E.3) Role Play EO as necessary to acknowledge the directive to place the control switch for the 0A Service Water Jockey Pump in the AFTER STOP position at the Remote Shutdown Panel. (No further action is necessary.)**				
8. LOP-WS-03 Step E.4	Notify chemistry to adjust Chemical Feed System	NOTIFIES chemistry to adjust Chemical Feed System	___	___	___
CUE	**As Chemistry personnel, inform the examinee the Chemical Feed System will be adjusted as required.**				
Note	**LOP-WS-03 Step E.5 and E.6 are Not Applicable**				
9. LOP-WS-03 Step E.7	Notify the Unit Supervisor to verify PARAGON is updated based on the number of main Service Water Pumps in operation	Unit Supervisor notified to update PARAGON	___	___	___
CUE	**Role Play as Unit Supervisor to acknowledge this report.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
10.	INFORM the Unit Supervisor when LOA-FP-101 Attachment A is completed up to and including step 5.	INFORMS the Unit Supervisor that LOA-FP-101 Attachment A is completed up to and including step 5.	___	___	___
TERMINATING CUE: **ACKNOWLEDGE report as Unit Supervisor and INFORM the examinee that the JPM is complete.** **Record completion time in the block below.**					

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Starting Service Water Pumps to Maintain Fire Header Pressure

JPM Number: S-FP-01 Revision Number: 02

Task Number and Title: 125.006 Provided initial conditions, respond to a loss of both 0A and 0B Diesel Fire Pumps IAW station procedures

K/A Number and Importance: 286000 Fire Protection Systems, A2.08 RO 3.2/SRO 3.3; Ability to (a) predict the impacts of the following on the Fire Protection; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Failure to actuate when required

Suggested Testing Environment: Simulator

Alternate Path: ☐Yes ☒No SRO Only: ☐Yes ☒No Time Critical: ☐Yes ☒No

Reference(s):
LOA-FP-101, Rev. 25; Unit 1 Fire protection System Abnormal
LOP-WS-03, Rev. 8, Service Water Pump Shutdown

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 15 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐Yes ☐No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐Unsatisfactory

Comments: _____

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_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

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INITIAL CONDITIONS

You are an Extra NSO assigned to Unit 1.

A large fire is in progress inside the lake screen house. The fire is on the west side of the ground floor.

Both Diesel Fire Pumps and the Jockey Fire Pumps have tripped due to the fire. The Intermediate Jockey Fire Pump remains running

Normal AC power remains available to the Lake Screen House.

All Service Water Pumps are available.

INITIATING CUE

The Unit Supervisor has directed you to start additional Service Water pumps to maintain fire header pressure greater than or equal to 125 psig in accordance with LOA-FP-101, "Unit 1 Fire Protection System Abnormal", Attachment A.

You are to INFORM the Unit Supervisor when LOA-FP-101 Attachment A is completed up to and including Step 5.

Exelon Nuclear

Job Performance Measure

Startup of the Mechanical Vacuum Pump

JPM Number: S-OG-02

Revision Number: 01

Date: 08/22/2014

Developed By:	Instructor	Date
Validated By:	SME or Instructor	Date
Reviewed By:	Operations Representative	Date
Approved By:	Training Department	Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00 This is a new JPM written for the 07-01 ILT NRC

Revision 01 Updated to current template and procedures for ILT 13-1 NRC Exam. Deleted the Alternate Path classification of this JPM.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to a low power IC with Reactor Pressure at approximately 50 psig. (Use IC195 for the ILT 13-1 NRC Exam.)

NOTE: It is okay to use a similar IC to the IC listed above, provided the IC used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2. Place Gland Seal System into operation per LOP-GS-01.
3. Verify 1IN62-F003A and 1IN62-F003B are closed.
4. Place the Stack WRGM on line.
5. Run the cae for this JPM: **SOG02r01.cae**
   - **trgset 2 "k7c19jbz"** (When the Mechanical Vacuum Pump is taken to START)
   - **imf r0481 (2 40) on** (1H13P601 F402 MSL A/B RAD MON DOWNSCALE/INOP/HI 40 second delay)
   - **imf r1283 (2 45) on** (1H13P601 E402 MSL C/D RAD MON DOWNSCALE/INOP/HI 45 second delay)
   - **imf r1282 (2 100) on** (1H13P601 F403 MSL A/B RAD MON HI-HI – 100 second delay)
   - **imf r0301 (2 95) on** (1H13P601 E403 MSL C/D RAD MON HI-HI – 95 second delay)
6. Silence, Acknowledge and Reset the annunciators, then Acknowledge the Process Computer Alarms.
7. Clear BOTH Sequence of Events Recorder (SER) monitor screens.
8. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.
9. This completes the setup for this JPM.

MATERIALS

The following materials will be provided to the examinee:

- A marked copy of LOP-OG-01, completed through Step E.1.7.

INITIAL CONDITIONS

- Unit 1 is starting up following a refueling outage, with reactor pressure currently at approximately 50 psig with conditions met for establishing condenser vacuum.
- LGP 1-1, Step E.3.14 is directing the start-up of the Mechanical Vacuum Pump per LOP-OG-01.
- LOP-OG-01 has been completed up to and including step E.1.7 in preparation for the start-up of the Mechanical Vacuum Pump.

INITIATING CUE

The Unit Supervisor has directed you to start-up the Unit 1 Mechanical Vacuum Pump per LOP-OG-01, beginning at step E.1.8.

You are to INFORM the Unit Supervisor when the Mechanical Vacuum Pump has been started and main condenser back pressure is DECREASING.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note	**Provide the examinee with the marked up copy of LOP-OG-01.**				
***1.** Step E.1.8	At 1N62-P601, PERFORM the following: • PLACE the 1N62-F300A control switch to OPEN and VERIFY the valve opens • PLACE the 1N62-F300B control switch to OPEN and VERIFY the valve opens	The control switch for ONE (or both) of the TWO listed valves is taken to the OPEN position, and light indication is checked to VERIFY the valve has opened.	___	___	___
***2.** Step E.1.9	At 1N62-P601, PLACE 1OG02P, Mech Vac Pmp control switch to START and RELEASE.	1OG02P, Mech Vac Pmp control switch is taken to START by rotating clockwise	___	___	___
3. Step E.1.10	At 1PM03J CHECK the following for main condenser back pressure DECREASING (vacuum increasing). • 1PR-ES062, 1C Cond Line Back Press • 1PR-ES058, 1A/1B Cond Line Back Press	At 1PM03J BOTH of the following indications are checked to determine if main condenser back pressure is DECREASING (vacuum increasing). • 1PR-ES062, 1C Cond Line Back Press • 1PR-ES058, 1A/1B Cond Line Back Press	___	___	___
SIMOP	**Verify Event Trigger 2 goes active when the Mechanical Vacuum Pump switch is taken to START and verify the following commands go active:** • **imf r0481 (2 40) on** (1H13P601 F402 MSL A/B RAD MON DOWNSCALE/INOP/HI, 40 second delay) • **imf r1283 (2 45) on** (1H13P601 E402 MSL C/D RAD MON DOWNSCALE/INOP/HI, 45 second delay) • **imf r1282 (2 100) on** (1H13P601 F403 MSL A/B RAD MON HI-HI, 100 second delay) • **imf r0301 (2 95) on** (1H13P601 E403 MSL C/D RAD MON HI-HI, 95 second delay)				

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note	**Record the time the MSL Rad Mon HI-HI alarm is received in order to track the securing of the mechanical vacuum pump within 15 minutes of the alarm.** **Time MSL Hi-HI Rad Alarm received: _____**				
4.	MSL Rad Mon Hi-Hi alarm annunciator alarms due to a valid MSL Hi-Hi Rad condition.	Responds to MSL Rad Mon Hi-Hi alarm by referring to LOR and checking MSL Rad recorders in backpanel.	___	___	___
CUE	**MSL Rad Recorders indicate 2200 mr/HR and rising steadily.**				
***5.**	Per CAUTION statement in LOP-OG-01, If a valid MSL A/B/C/D Rad Mon Hi-Hi alarm is received, TRIP Mechanical Vacuum Pump within 15 minutes to prevent exceeding the radioactivity release dose limit.	TRIPS the Mechanical Vacuum Pump by taking the 1OG02P, Mech Vac Pmp control switch to STOP by rotating counterclockwise, within 15 minutes of receiving the MSL Rad Mon Hi-Hi alarm	___	___	___
Note	**Time the Mechanical Vacuum Pump was tripped _____**				
6.	INFORMS that Unit Supervisor that the Mechanical Vacuum Pump has been TRIPPED due to a valid MSL Rad Mon Hi-Hi alarm.	INFORMS the Unit Supervisor that the Mechanical Vacuum Pump has been TRIPPED due to a valid MSL Rad Mon Hi-Hi alarm.	___	___	___
TERMINATING CUE: **ACKNOWLEDGE report as Unit Supervisor and INFORM the examinee the JPM is complete.**					

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Startup of the Mechanical Vacuum Pump

JPM Number: S-OG-02 Revision Number: 02

Task Number and Title: 80.001 Given Unit Supervisor authorization, perform the Main Control Room actions to startup the Off Gas Mechanical Vacuum Pump IAW station procedures

K/A Number and Importance: 271000 Offgas System A2.03 3.5/3.8; Ability to (a) predict the impacts of the following on the Offgas; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Main steamline high radiation

Suggested Testing Environment: Simulator

Alternate Path: ☐Yes ☒No SRO Only: ☐Yes ☒No Time Critical: ☒Yes ☐No

Reference(s):
LOP-OG-01 Rev. 16, Startup of the Main Condenser Mechanical Vacuum Pump

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 14 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐Yes ☐No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

- Unit 1 is starting up following a refueling outage, with reactor pressure currently at approximately 50 psig with conditions met for establishing condenser vacuum.
- LGP 1-1, Step E.3.14 is directing the start-up of the Mechanical Vacuum Pump per LOP-OG-01.
- LOP-OG-01 has been completed up to and including step E.7 in preparation for the start-up of the Mechanical Vacuum Pump.

INITIATING CUE

The Unit Supervisor has directed you to start-up the Unit 1 Mechanical Vacuum Pump per LOP-OG-01, beginning at step E.8.

You are to INFORM the Unit Supervisor when the Mechanical Vacuum Pump has been started and main condenser back pressure is DECREASING.

Exelon Nuclear

Job Performance Measure

LOSS OF RCMS CONTROLLER AND INTERFACE POWER (2H13-P659 ELECTRONICS)

JPM Number: P-RM-04

Revision Number: 04

Date: 8/22/2014

Developed By:	Instructor	Date
Validated By:	SME or Instructor	Date
Reviewed By:	Operations Representative	Date
Approved By:	Training Department	Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00, New JPM for 2009 Annual Exam.

Revision 01, Starting Cue was changed to swap to alternate power supply. Changed starting point of the JPM to be AEER instead of Control Room.

Revision 02, Added new checklist. Changed initial condition so the examinee could sign off the first two steps of section B.1.

Revision 03, Made task statement full. Updated procedure references.

Revision 04, Updated to current template and procedures for ILT 13-1 NRC Exam.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

SIMULATOR SETUP INSTRUCTIONS

1. No Simulator Setup –Plant JPM.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

You are the Extra NSO.

CORE Map, ROD SELECT Display and STATUS Display all indicate no data available.

- Data Source A-NO DATA AVAILABLE
- Data Source B-NO DATA AVAILABLE

CHECK Control Rods-AT SEQUENCE POSITION-NONE HAVE MOVED.

The Unit 2 NSO and an EO are available to assist you as necessary.

INITIATING CUE

You have been directed to enter LOA-RM-201, Unit 2 RCMS Abnormal Situations, Section B.1 starting at Step 3.

You are to inform the Unit 2 Supervisor when the RCMS Electronics power supply has been transferred from Primary to Alternate.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE:	**These actions take place at the 2H13-P659 in Unit 2 AEER.**				
1. LOA-RM-201 Step 3.1	CHECK AEER panel 2H13-P659 – at least one RCMS Controller Channel Voltage indicator LEDs ON. • RCMS Controller Channel A. • RCMS Controller Channel B.	Examinee CHECKS Controller Channel Voltage Indicators LEDs are ON.	___	___	___
CUE:	**The Channel Voltage Indicator LEDs on both controllers are NOT LIT.**				
NOTE:	**The TSW-1 switch is inside the back of the 2H13-P659 panel.**				
2. LOA-RM-201 Step 3.1	RESTORE Power: • If TSW-1 is currently in Primary Position, TRANSFER power to Alternate position per LOP-RM-04.	Examinee identifies that TSW-1 is in Primary – and needs to be TRANSFERRED to Alternate per LOP-RM-04.	___	___	___
CUE:	**The switch you have identified is in the PRIMARY POSITION.**				
NOTE:	**The examinee determines that he/she needs a copy of LOP-RM-04 and either calls the Control Room, Field Supervisor or describes where they would get a copy.** **Once done – provide a copy of this procedure.**				
3. LOP-RM-04 Step 9.1	REFER to Attachment B for RCMS Primary and Alternate power sources.	Examinee makes REFERENCE to Attachment B.	___	___	___
4. LOP-RM-04 Step 9.2	The following steps transfer power for: • RCMS Interface A • RCMS Interface B • RCMS Controller Channels A and B • Maintenance Display	Examinee placekeeps procedure steps and identifies that the steps below are the steps needed to transfer power for the RCMS Controller Channels.	___	___	___
NOTE:	**This step is just placekept for transfer of power.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
5. LOP-RM-04 Step 9.3	VERIFY MCC 232Y-2 is Energized.	Examinee VERIFIES MCC 232Y-2 is ENERGIZED.	___	___	___
NOTE:	**MCC 232Y-2 is located at Aux Bldg. 710' N-19, Outside Div. I SWGR The Examinee can have the EO/MCR verify this OR verify it himself/herself.**				
CUE:	**If an EO/MCR is requested to verify: REPORT is that "The MCC 232Y-2 is ENERGIZED".**				
6. LOP-RM-04 Step 9.3.1	VERIFY MCC 232Y-2 Compartment F1, Circuit 2 is CLOSED.	Examinee VERIFIES MCC 232Y-2 Compartment F1, Circuit 2 is CLOSED.	___	___	___
NOTE:	**From the report that the MCC is energized – the assumption can be made that the breaker circuit is closed. The next cue may not be used if not asked.**				
CUE:	**Report that the MCC 232Y-2 is Compartment F1, Circuit 2 is CLOSED.**				
7. LOP-RM-04 Step 9.4	If entering from LOA-RM-201, go to Step E.9.9.	Examinee goes to Step E.9.9.	___	___	___
8. LOP-RM-04 Step 9.9.1	At panel 2H13-P659, PERFORM the following: • Place the VIDEO SELECT Switch to A SYS.	Examinee places the VIDEO SELECT Switch to A SYS.	___	___	___
NOTE:	**This may be conditions met.**				
CUE:	**The Switch you have identified is in the position you described.**				
*9. LOP-RM-04 Step 9.9.2	At panel 2H13-P659, PERFORM the following: • Place the ON/OFF switch for RCMS Controller channel A to OFF.	Examinee places the ON/OFF switch for RCMS Controller channel A to OFF.	___	___	___
CUE:	**The Switch you have identified is in the position you described.**				
*10. LOP-RM-04 Step 9.9.3	At panel 2H13-P659, PERFORM the following: • Place the ON/OFF switch for RCMS Controller channel B to OFF.	Examinee places the ON/OFF switch for RCMS Controller channel B to OFF.	___	___	___
CUE:	**The Switch you have identified is in the position you described.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
11. LOP-RM-04 Step 9.10	At panel 2H13-P603, ACKNOWLEDGE any LOST CONTROL and LOST COMMUNICATION screen messages.	Examinee notifies the Control Room NSO to ACKNOWLEDGE any LOST CONTROL and LOST COMMUNICATION screen messages.	___	___	___
CUE:	**The Control Room NSO has acknowledged all alarms.**				
*12. LOP-RM-04 Step 9.11	At panel 2H13-P659, TRANSFER switch 2H13-P659 **TSW-1** "2H13-P659 RCMS ELECTRONICS POWER TRANSFER SW" from Primary to Alternate position.	Examinee TRANSFERS switch 2H13-P659 **TSW-1** "2H13-P659 RCMS ELECTRONICS POWER TRANSFER SW" from Primary to Alternate position.	___	___	___
NOTE:	**The transfer switch must be turned 180° to the ALTERNATE position. The OFF position is at 90°.**				
CUE:	**The Switch you indicated is in the position you described.**				
*13. LOP-RM-04 Step 9.12	At panel 2H13-P659, Perform the following: • Place the ON/OFF switch for RCMS Controller A to ON.	Examinee PLACES the ON/OFF switch for RCMS Controller A to ON.	___	___	___
CUE:	**The Switch you indicated is in the position you described.**				
14. LOP-RM-04 Step 9.13	At panel 2H13-P603, Perform the following: • ACKNOWLEDGE the screen message stating RCMS Controller A is on-line.	Examinee has Control Room NSO ACKNOWLEDGE the screen message stating RCMS Controller A is on-line.	___	___	___
CUE:	**The Control Room NSO reports that the screen message has been acknowledged.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*15. LOP-RM-04 Step 9.14.1	At panel 2H13-P659, Perform the following: • Place the VIDEO SELECT switch to B SYS.	Examinee PLACES the VIDEO SELECT switch to B SYS.	___	___	___
CUE:	**The Switch you indicated is in the position you described.**				
*16. LOP-RM-04 Step 9.14.2	At panel 2H13-P659, Perform the following: • PLACE the ON/OFF switch for RCMS Controller B to ON.	Examinee PLACES the ON/OFF switch for RCMS Controller B to ON.	___	___	___
CUE:	**The Switch you indicated is in the position you described.** **RCMS Controller Channel B has performed a DOS Boot, Watchdog Test, and loaded the application. All Self-Tests are complete and Both Controllers indicate OK in the Header region.**				
17.	Inform the Unit Supervisor that RCMS has been repowered from the ALTERNATE Power supply.	Examinee INFORMS the Unit Supervisor that RCMS has been repowered from the ALTERNATE Power supply.	___	___	___
TERMINATING CUE: **Acknowledge Report and inform the Examinee that the JPM is Complete.**					

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Loss of RCMS Controller and Interface Power (2H13-P659 Electronics)

JPM Number: P-RM-04 Revision Number: 04

Task Number and Title: 47.013 Provided initial conditions, perform the actions associated with Rod Control Management System alarms, IAW station procedures.

K/A Number and Importance: 201002 Reactor Manual Control System 2.1.30 Ability to locate and operate components, including local controls. (4.4/4.0)

Suggested Testing Environment: Plant

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): LOA-RM-201 Rev. 19, Unit 2 RCMS Abnormal Situations
LOP-RM-04 Rev. 07, RCMS Power Supplies and Transfers

Actual Testing Environment: ☐ Simulator ☐ Control Room ☒ In-Plant ☐ Other

Testing Method: ☒ Simulate ☐ Perform

Estimated Time to Complete: 35 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

You are the Extra NSO.

CORE Map, ROD SELECT Display and STATUS Display all indicate no data available.

- Data Source A-NO DATA AVAILABLE
- Data Source B-NO DATA AVAILABLE

CHECK Control Rods-AT SEQUENCE POSITION-NONE HAVE MOVED.

The Unit 2 NSO and an EO are available to assist you as necessary.

INITIATING CUE

You have been directed to enter LOA-RM-201, Unit 2 RCMS Abnormal Situations, Section B.1 starting at Step 3.

You are to inform the Unit 2 Supervisor when the RCMS Electronics power supply has been transferred from Primary to Alternate.

Exelon Nuclear

Job Performance Measure

Lineup a Fire Hose To 2A TDRFP for Injection Into The RPV

JPM Number: P-FP-04

Revision Number: 02

Date: 08/22/2014

Developed By:	_____ Instructor	_____ Date
Validated By:	_____ SME or Instructor	_____ Date
Reviewed By:	_____ Operations Representative	_____ Date
Approved By:	_____ Training Department	_____ Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

1. **Revision 00,** New JPM based on bank JPM P-FP-03, Rev. 0. Connects FP to the 2A TDRFP rather than the 1A TDRFP. Updated to current template and procedures for ILT 11-1 NRC Exam
2. **Revision 01,** Added checklist, revised the cue, and added sign off lines.
3. **Revision 02,** Updated to current template and procedures for ILT 13-1 NRC Exam.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

SETUP INSTRUCTIONS

1. Be prepared to provide a copy of pages 1-7 and 34-43 of LGA-FP-01, Alternate Vessel Injection Using the Fire Protection System.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

1. A reactor scram has occurred on Unit 2 and all rods are full in.
2. There is no injection into the vessel; Diesel Fire Pumps are the only injection source.
3. The Unit 2 NSO is coordinating LGA-FP-01, "Diesel Fire Pump Makeup to the Reactor".
4. An Operator has just been assigned to perform the in-plant actions to line up Fire Protection to the MDRFP.
5. The 2B TDRFP is OOS with the pump casing removed.
6. The Unit 2 NSO has verified that all Feedwater System valves are aligned per LGA-FP-01 at control room panels 2PM03J and 2H13-P601.
7. Fire protection header pressure is normal.
8. There is NO fire.
9. The Chemical Feed system is out of service.
10. You have a plant radio.

INITIATING CUE

The Unit 2 NSO directs you to connect the Fire Protection System to the 2A TDRFP IAW LGA-FP-01 Attachment 2A.

Inform the Unit 2 NSO when Fire Protection is lined up to 2A TDRFP per LGA-FP-01, Attachment 2A.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.
* Denotes CRITICAL step.

Tell examinee he may assume all second verifications and associated paperwork is simulated complete as necessary.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP (LGA-FP-01 Attachment 2A)	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	Obtain a copy of LGA-FP-01 and an LGA Support Locker Key	Examinee simulates obtaining procedure and LGA Support Locker Key	____	____	____
CUE:	**Provide examinee with the prepared copy of LGA-FP-01 when he/she describes/demonstrates where to get procedure and Support Locker Key.**				
NOTE:	**The Evaluator will act as Safety Person as required.**				
2.	Obtain equipment from the Main LGA Support Locker	Examinee simulates obtaining equipment from LGA Support Locker (Unit 2 LGA-FP-01 Equipment Bag)	____	____	____
CUE:	**You have obtained the equipment you identified.**				
3.	OBTAIN equipment from Local LGA Support Locker	Examinee simulates obtaining equipment from Local LGA Support Locker	____	____	____
CUE:	**You have obtained the equipment you identified.**				
*4. (1st Line)	Remove fire hose from Hose Station FB451 and install a wye connector	Examinee simulates removing fire hose from Hose Station FB451 and installing a wye connector	____	____	____
CUE:	**The fire hose and wye connector are positioned as you describe.**				
*5. (2nd Line)	Connect fire station fire hose to one end of wye and run it into 2A TDRFP Room	Examinee simulates connecting fire station fire hose to one end of wye and running it into 2A TDRFP Room	____	____	____
CUE:	**The fire hose and wye connector are positioned as you describe.**				
NOTE:	**The next step of LGA-FP-01 Attachment 2A is N/A because it performs the same action on the 2B TDRFP, which is out of service per initiating cue.**				
*6. (4th Line)	(In 2A TDRFP Room) Install wye connector at end of fire hose	Examinee simulates installing wye connector at end of fire hose	____	____	____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP (LGA-FP-01 Attachment 2A)	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*7. (5th Line)	Connect fire hoses to the two ends of this wye connector.	Examinee simulates connecting fire hoses to the two ends of this wye connector	____	____	____
CUE:	**The Fire hose is connected as you describe**				
*8. (6th Line)	Install FP to 1" converter on 2FW041A/42A, 2A TDRFP Dsch Line Upstrm/Dwnstr Lo Point Drain	Examinee simulates installing FP to 1" converter on 2FW041A/42A	____	____	____
CUE:	**The converter is installed as you described.**				
*9. (7th Line)	Connect one fire hose to 1" converter	Examinee simulates connecting one fire hose to 1" converter	____	____	____
CUE:	**The Fire hose is connected as you describe**				
*10. (8th Line)	Install FP to 3/4" converter on 2CB022C, A TDRFP Suct Lo Point Drain Valve	Examinee simulates installing FP to 3/4" converter on 2CB022C	____	____	____
CUE:	**The converter is installed as you described.**				
*11. (9th Line)	Connect other fire hose to 3/4" converter	Examinee simulates connecting other fire hose to 3/4" converter	____	____	____
CUE:	**The Fire hose is connected as you describe**				
12.	Notify Unit 2 NSO that alignment of FP to 2A TDRFP is complete	The Examinee simulates notifying the Unit 2 NSO that alignment of FP to 2A TDRFP is complete	____	____	____
CUE:	**As the Unit 2 NSO, acknowledge the report that FP is aligned to the 2A TDRFP.**				
13.	Complete all required signatures, dates, and times on Attachment 2A	The Examinee completes or simulates completing all required signatures, dates, and times on Attachment 2A	____	____	____
TERMINATING CUE **The JPM is complete when the Unit 2 NSO is notified.**					

JPM Stop Time: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Lineup a Fire Hose to 2A TDRFP for Injection into the RPV

JPM Number: P-FP-04 Revision Number: 02

Task Number and Title: 414.020

Given entry into LGA-01, RPV Control, evaluate plant conditions and control RPV water level using FPIAW station procedures

K/A Number and Importance: 295031 (Reactor Low Water Level) EA1.08 3.8/3.9

Ability to operate and/or monitor the following as they apply to REACTOR LOW WATER LEVEL: Alternate Injection Systems

Suggested Testing Environment: In-Plant

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): LGA-FP-01 Alternate Vessel Injection Using the Fire Protection System, Rev 15

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 10 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

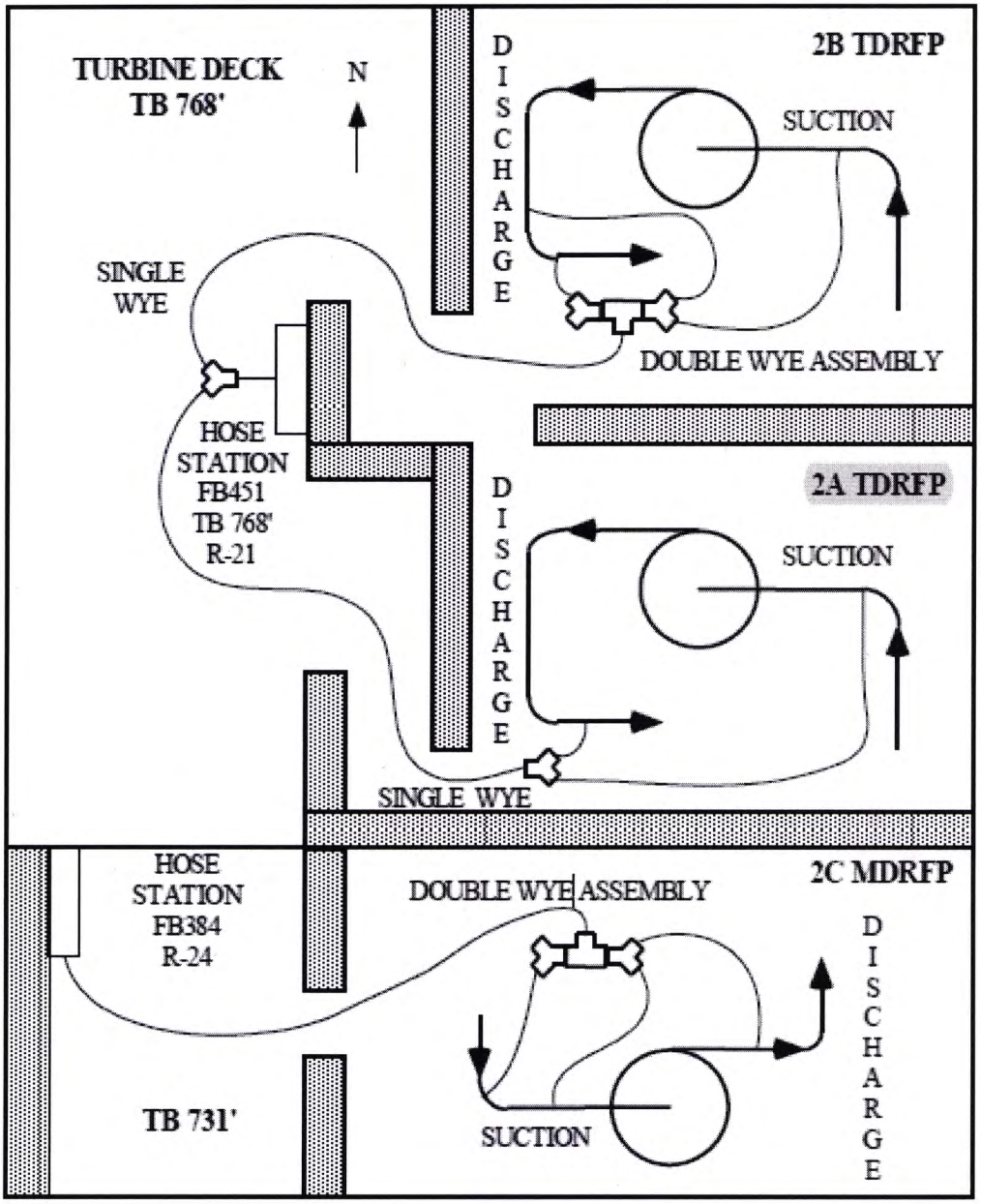
Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

KEY

ATTACHMENT 2B

UNIT 2 FIRE HOSE CONNECTION DIAGRAM



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INITIAL CONDITIONS

1. A reactor scram has occurred on Unit 2 and all rods are full in.
2. There is no injection into the vessel; Diesel Fire Pumps are the only injection source.
3. The Unit 2 NSO is coordinating LGA-FP-01, "Diesel Fire Pump Makeup to the Reactor".
4. An Operator has just been assigned to perform the in-plant actions to line up Fire Protection to the MDRFP.
5. The 2B TDRFP is OOS with the pump casing removed.
6. The Unit 2 NSO has verified that all Feedwater System valves are aligned per LGA-FP-01 at control room panels 2PM03J and 2H13-P601.
7. Fire protection header pressure is normal.
8. There is NO fire.
9. The Chemical Feed system is out of service.
10. You have a plant radio.

INITIATING CUE

The Unit 2 NSO directs you to connect the Fire Protection System to the 2A TDRFP IAW LGA-FP-01 Attachment 2A.

Inform the Unit 2 NSO when Fire Protection is lined up to 2A TDRFP per LGA-FP-01, Attachment 2A.

Exelon Nuclear

Job Performance Measure

Defeat Isolations on Unit 1 per LGA-VP-01

JPM Number: P-VP-04

Revision Number: 00

Date: 10/02/2014

Developed By:	_____ Instructor	_____ Date
Validated By:	_____ SME or Instructor	_____ Date
Reviewed By:	_____ Operations Representative	_____ Date
Approved By:	_____ Training Department	_____ Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Revision Record (Summary)

Revision 00, Converted JPM P-VP-01 Rev. 12 (Unit 2 specific) to a new JPM that was Unit 1 specific. Updated to current template and procedures for ILT 13-1 NRC Exam.

SIMULATOR SETUP INSTRUCTIONS

1. No SIM setup required.

NOTE: This JPM is specific to Unit 1

2. The following material is required to be provided to examinee:

   (After demonstrating knowledge of location of controlled copy)

   a. One copy of LGA-VP-01: Pages 1-4 and Attachment 1A (Pages 20-22)

   b. One laser pointer.

3. The following material is to be obtained by the examinee:

   a. Main LGA Support Locker key

4. The following material may be identified by the examinee but NOT removed from its normal storage location:

   a. Unit 1 LGA-VP-01 equipment bag containing the following:

   - 4 Red jumpers
   - 4 Blue jumpers
   - 1 Flat blade screwdriver
   - Electrical tape

   b. Flashlights/lanterns

INITIAL CONDITIONS

- You are an extra NSO.
- Unit 1 is experiencing an ATWS.
- Reactor water level was intentionally lowered to –60 inches for power control.
- There is no evidence of a leak in the primary containment.
- Drywell temperature is 135°F and rising 2°F/min.
- 1A VP loop, fan and chiller and five area coolers were running prior to the isolation.
- 1B VP chill water pump is OOS.
- The SAT is supplying all AC buses.
- All support systems are operating as expected.
- Radiological conditions are at or below normal levels.
- You have a plant radio.

INITIATING CUE

The Unit Supervisor directs you to defeat U-1 VP isolation signals per LGA-VP-01. Notify the Control Room when the isolation signals are defeated.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	Obtain copy of LGA-VP-01	Examinee identifies where copy of LGA-VP-01 can be obtained.	___	___	___
CUE:	**After examinee identifies where copy of LGA-VP-01 can be obtained, provide examinee with copy of LGA-VP-01.**				
2.	Obtain Main LGA Support Locker key.	Examinee obtains Main LGA Support Locker key.			
3.	Obtain Unit 1 LGA-VP-01 equipment bag from Main LGA Support Locker.	Examinee identifies Unit 1 LGA-VP-01 equipment bag within the Main LGA Support Locker.	___	___	___
Note	**Sequence is not required for Numbers 4 through 19 inclusive.**				
CUE:	**You have the equipment that you have identified.**				
*4.	Install blue jumper in AEER panel 1PA13J Terminal Board CC Point 51 to Point 52	Examinee locates AEER panel 1PA13J and installs blue jumper from Terminal Board CC Point 51 to Point 52.	___	___	___
CUE:	**The jumper you indicated is installed as you described.**				
5.	Sign and enter date and time jumper was installed on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___
*6.	LIFT lead in AEER panel 1PA13J from Terminal Board CC Point 53	Examinee locates and lifts lead in AEER panel 1PA13J from Terminal Board CC Point 53	___	___	___
CUE:	**The lead you indicated is in the condition you described.**				
7.	Sign and enter date and time lead was lifted on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*8.	Install blue jumper in AEER panel 1PA13J Terminal Board CC Point 43 to Point 44	Examinee locates AEER panel 1PA13J and installs blue jumper from Terminal Board CC Point 43 to Point 44.	___	___	___
CUE:	**The jumper you indicated is installed as you described.**				
9.	Sign and enter date and time jumper was installed on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___
*10.	LIFT lead in AEER panel 1PA13J from Terminal Board CC Point 45	Examinee locates and lifts lead in AEER panel 1PA13J from Terminal Board CC Point 45	___	___	___
CUE:	**The lead you indicated is in the condition you described.**				
11.	Sign and enter date and time lead was lifted on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___
*12.	Install blue jumper in AEER panel 1PA14J Terminal Board CC Point 51 to Point 52	Examinee locates AEER panel 1PA14J and installs blue jumper from Terminal Board CC Point 51 to Point 52.	___	___	___
CUE:	**The jumper you indicated is installed as you described.**				
13.	Sign and enter date and time jumper was installed on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___
*14.	LIFT lead in AEER panel 1PA14J from Terminal Board CC Point 53	Examinee locates and lifts lead in AEER panel 1PA14J from Terminal Board CC Point 53	___	___	___
CUE:	**The lead you indicated is in the condition you described.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
15.	Sign and enter date and time lead was lifted on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___
***16.**	Install blue jumper in AEER panel 1PA14J Terminal Board CC Point 43 to Point 44	Examinee locates AEER panel 1PA14J and installs blue jumper from Terminal Board CC Point 43 to Point 44.	___	___	___
CUE:	**The jumper you indicated is installed as you described.**				
17.	Sign and enter date and time jumper was installed on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___
***18.**	LIFT lead in AEER panel 1PA14J from Terminal Board CC Point 45	Examinee locates and lifts lead in AEER panel 1PA14J from Terminal Board CC Point 45	___	___	___
CUE:	**The lead you indicated is in the condition you described.**				
19.	Sign and enter date and time lead was lifted on LGA-VP-01 Attachment 1A.	The Examinee signs and enters date and time jumper was installed on LGA-VP-01 Attachment 1A.	___	___	___
20.	Inform control room.	Examinee informs control room of completion of LGA-VP-01 Attachment 1A.	___	___	___
CUE:	**Acknowledge report.**				
TERMINATING CUE: **This completes this JPM.**					

JPM Stop Time: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JPM SUMMARY

Operator's Name: _____

Job Title: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Defeat Isolations on Unit 1 per LGA-VP-01

JPM Number: P-VP-04 Revision Number: 00

Task Number and Title: 401.000, Given a LGA in progress, evaluate plant conditions, locate and perform the following procedures including installation/removal of a jumper/lead/relay boot, IAW the listed procedures: LGA-VP-01

K/A Number and Importance: 295012, High Drywell Temperature, AA1.02, 3.8/3.8, Ability to operate and/or monitor the following as they apply to High Drywell Temperature: Drywell cooling system

Suggested Testing Environment: In-Plant

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s):
LGA-VP-01, Rev. 08, Primary Containment Temperature Reduction

Actual Testing Environment: ☐ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☐ Perform

Estimated Time to Complete: 15 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date**: _____

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INITIAL CONDITIONS

- You are an extra NSO.
- Unit 1 is experiencing an ATWS.
- Reactor water level was intentionally lowered to –60 inches for power control.
- There is no evidence of a leak in the primary containment.
- Drywell temperature is 135°F and rising 2°F/min.
- 1A VP loop, fan and chiller and five area coolers were running prior to the isolation.
- 1B VP chill water pump is OOS.
- The SAT is supplying all AC buses.
- All support systems are operating as expected.
- Radiological conditions are at or below normal levels.
- You have a plant radio.

INITIATING CUE

The Unit Supervisor directs you to defeat U-1 VP isolation signals per LGA-VP-01. Notify the Control Room when the isolation signals are defeated.